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EXAMINER

PENDERGRASS, KYLE M

ART UNIT PAPER NUMBER

2624

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/932,661

Applicant(s)

FERLITSCH, ANDREW RODNEY

Examiner

Kyle M. Pendergrass

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/17/01.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 17 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Computer signals in electronic transmissions claimed as computer listings per se, i.e., the descriptions or expressions of the signal, are not physical 'things.'...In contrast, a claimed circuit (or another physical entity which can contain the signal) encoded with a signal is an element which defines structural and functional interrelationships between the signal and the rest of the machine to which the circuit could be used in (i.e. a computer) which permit the signal's functionality to be realized, and is thus statutory.

An acceptable, parallel example would be written in the format as seen in claim 16, where a medium stores instructions. One cannot simply claim the instructions by themselves, like one cannot claim the signals by themselves.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

I. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blossey et al (U.S. Patent No. 6,057,930) in view of applicant's submitted prior art in the specification.

The Blossey et al reference discloses a method and apparatus for handling print jobs with print job-independent instructions for carrying out printing on a network.

1. Claim 1

A method for providing collated, face-up printing, said method comprising:

- **creating a spool data file;**
- Blossey et al discloses in column 2, lines 64 "...the submitted job". Fig 1. illustrates spool 140 for spooling each print job.
- **creating a Page-Independent index file from said spool data file;**
- Blossey et al discloses in column 2, line 65 – column 3, line 2 that there is a "job description" portion created from the submitted job. This portion has "certain instructions for printing the job," which reads as a page-independent index file because it specifies printing effects for each page of the print job.
- **manipulating said index file to effect collated, face-up printing; and**
- Blossey et al discloses in column 3, lines 2-10 that the job description section includes collated printing which inherently was manipulated onto the job description section, i.e. the index file, otherwise job description file would have no descriptive properties. In creating the index file, an amount of space is reserved for future job descriptive instructions, i.e. collation, to be added/manipulated. Blossey et al. teach the manipulation in that the collated instructions are added to the file. However, Blossey et al does not teach face-up printing as a print job description option.
- **executing a print job by accessing said index file.**

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- Blossey et al discloses in column 3, lines 48-55 that the print job is sent to an output terminal and is executed via the interpretation, i.e. by accessing, of the job description section of the print job.
- As stated above, Blossey et al does not explicitly teach that the instructions for the print job description section include face-up printing.
- However, the applicant discloses in the submitted prior art in the specification that **collated** printing and **face-up** printing are traditional formatting types. See paragraph [0001] of Applicant's BACKGROUND. It would make sense to put these formatting options into the print job description since it describes the print job to be printed.
- Since the teachings of Blossey et al and Applicant are in the art of print job control and file spooling, it would have been obvious to one of ordinary skill in the art at the time of the invention to include different formatting types into a job control file. The motivation would be so that users can have various formatting options to customize a printed document the way that they wanted.

2. Claim 2

The method of claim 1 wherein

- **said spool data file is a Microsoft Windows Job Description File.**
- Blossey et al discloses in column 2, line 46 that PostScript is commercially available. One skilled in the art knows that PostScript can be used in the Windows operating environment, although it might not necessarily be termed a "**MS windows job description file.**"
- Also, the applicant disclosed prior art in the BACKGROUND of the specification in paragraph [0006] explains that EMF and raw are two common types of data files in Windows.
- Both references are in the art of file spooling/control and printing. This will serve as the motivation for combining these two references from here forth.
- Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention to use EMF or raw data instead of PostScript. The motivation would have been that users would have had an easier time customizing or printing in various formats, depending on which one was more suited to the users' needs.

3. Claim 3

The method of claim 1 wherein

- **said manipulation comprises changing the order in which pages are printed.**
- Blossey et al does not disclose that print job description functions include any means of changing the order of the document pages.
- The applicant's disclosure of the prior art in U.S. Patent application serial number 09/894,928 states in page 2, line 17-19 that "reverse order collation" is a known formatting option.
- Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include "reverse order collation" in Blossey et al's invention . The motivation would have been to give users more printing manipulation options.
- Furthermore, admission of this prior art is connected with the current application because the current application is a CIP of application Serial Number 09/894,928, and the admitted prior art from Applicant applies to the examination of this application.

4. Claim 4

The method of claim 1 wherein

- **said index file comprises print job commands, page commands and page data.**
- See wherein Blossey et al discloses in column 3 lines 1-10 that the print job description, i.e. index file, comprises instructions, i.e. commands, for the print job, which inherently includes commands for each page in the print job because they are a part of the print job as a whole. Blossey et al teaches the job description file comprising page data, i.e. duplex paging , etc. These read on the commands for the print job and the page, as well as the page data.

5. Claim 5

The method of claim 1 wherein

- **said index file provides access to at least one Enhanced Metafile (EMF) file.**

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- As mentioned above, in the rejection to claim 1, the job description section reads on the index file. This section controls information in a print job, but Blossey et al does not explicitly disclose what format this print job file is in.
- However, the applicant's disclosure of the prior art states in paragraph [0006] that EMF and raw are two common types of data that Windows typically uses.
- Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use EMF or raw data in Blossey et al's invention. The motivation would have been to use a widely recognized format for increased compatibility.

6. Claim 6

The method of claim 1 wherein

- **said index file provides access to at least one raw format file.**
- See claim 5 above. Same rejection with raw data instead of EMF.

7. Claim 7

The method of claim 1 wherein

- **said manipulation of said index file comprises changing the side of a duplex page on which printing occurs.**
- In following the availability of face-up printing taught by Applicants admission of prior art traditional to the invention, it follows that face-down printing is an option. Therefore, the manipulation comprises changing the side (from face-down to face-up) of any page on which printing occurs.

8. Claim 8

A method for providing driver-independent, printer-independent collated, face-up printing in a printing system, said method comprising:

- **creating a spool data file;**

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- Blossey et al discloses in column 2, lines 64 “...the submitted job”. Fig 1. illustrates spool 140 for spooling each print job.
- **creating a Page-Independent index file from said spool data file;**
- Blossey et al discloses in column 2, line 65 – column 3, line 2 that there is a “job description” portion created from the submitted job. This portion has “certain instructions for printing the job,” which reads as a page-independent index file because it specifies printing effects for each page of the print job.
- **allowing manipulation of said PISF index file to effect collated, face-up printing; and**
- Blossey et al discloses in column 3, lines 2-10 that the job description section includes collated printing which inherently was manipulated onto the job description section, i.e. the index file, otherwise job description file would have no descriptive properties. In creating the index file, an amount of space is reserved for future job descriptive instructions, i.e. collation, to be added/manipulated. Blossey et al. teach the manipulation in that the collated instructions are added to the file. However, Blossey et al does not teach face-up printing as a print job description option.
- **Accessing said PISF index file to execute a print job**
- Blossey et al discloses in column 3, lines 48-55 that the print job is sent to an output terminal and is executed via the interpretation, i.e. by accessing, of the job description section of the print job.
- As stated above, Blossey et al does not explicitly teach that the instructions for the print job description section include face-up printing.
- However, the applicant discloses in the submitted prior art in the specification that **collated** printing and **face-up** printing are traditional formatting types. See paragraph [0001] of Applicant's BACKGROUND. It would make sense to put these formatting options into the print job description since it describes the print job to be printed.
- Since the teachings of Blossey et al and Applicant are in the art of print job control and file spooling, it would have been obvious to one of ordinary skill in the art at the time of the invention

to include different formatting types into a job control file. The motivation would be so that users can have various formatting options to customize a printed document the way that they wanted

9. Claim 9

A method for providing face-up, collated output in a printing system, said method comprising:

- **creating a Page-Independent Spool File (PISF) index file;**
- **manipulating said PISF index file to effect document formatting options; and**
- **accessing said manipulated PISF index file to execute a print job.**
- These limitations have all been addressed in the rejection to claim 1.

10. Claim 10

The method of claim 9 wherein

- **said creating, said manipulating and said accessing are accomplished with a print processor.**
- Blossey et al – column 3, lines 56-67 and fig 2 teach CPUs 200 and 210 for creating, manipulating and accessing.

11. Claim 11

The method of claim 9 wherein

- **said creating, said manipulating and said accessing are accomplished through a spooler.**
- See Blossey et al fig 1 with spoolers 140 and 145

12. Claim 12

The method of claim 9 wherein

- **said creating, said manipulating and said accessing are accomplished through a print assistant between a driver and a printer.**
- See Blossey et al fig 1 and fig 2.

13. Claim 13

A method for adding collated, face-up output capability to a printing system, said method comprising:

- **initiating a print job for a document;**
- Blossey et al discloses in column 2, lines 63-64 a submitted print job.
- **creating a page-independent spool index file;**
- Blossey et al discloses in column 2, line 65 – column 3, line 2 that there is a “job description” portion created from the submitted job. This portion has “certain instructions for printing the job,” which reads as a page-independent index file because it specifies printing effects for each page of the print job.
- **modifying said index file, from said print processor, to make said print job conform to said user input; and**
- Blossey et al discloses in column 3, lines 2-10 that the job description section includes collated printing which inherently was manipulated onto the job description section, i.e. the index file, otherwise job description file would have no descriptive properties. In creating the index file, an amount of space is reserved for future job descriptive instructions, i.e. collation, to be added/modified. Blossey et al. teach the modification in that the collated instructions are added to the file. However, Blossey et al does not teach face-up printing as a print job description option.
- **accessing said index file, from said print processor, to obtain document formatting information for printing.**
- Blossey et al discloses in column 3, lines 48-55 that the print job is sent to an output terminal and is executed via the interpretation, i.e. by accessing, of the job description section of the print job.
- As stated above, Blossey et al does not explicitly teach that the instructions for the print job description section include face-up printing.

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- However, the applicant discloses in the submitted prior art in the specification that **collated** printing and **face-up** printing are traditional formatting types. See paragraph [0001] of Applicant's BACKGROUND. It would make sense to put these formatting options into the print job description since it describes the print job to be printed.
- Since the teachings of Blossey et al and Applicant are in the art of print job control and file spooling, it would have been obvious to one of ordinary skill in the art at the time of the invention to include different formatting types into a job control file. The motivation would be so that users can have various formatting options to customize a printed document the way that they wanted.

14. Claim 14

The method of claim 13 wherein

- **said index file is produced by a print system component in a print system between a driver and a printer.**
- See rejection to claim 12 above.

15. Claim 15

A printing system with driver-independent, printer-independent document formatting, said system comprising: a print processor comprising:

- **an indexer for creating a page-independent index file;**
- The spoolers 145 and 140 as disclosed by Blossey et al read on the **indexer** (fig 1).
- **a modifier for modifying said index file to effect document formatting options; and**
- **a reader for accessing said manipulated index file to execute a modified print job.**
- These limitations have been addressed in the rejection to claim 13.
- Blossey et al does not explicitly teach that the instructions for the print job description section include face-up printing.

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- However, the applicant discloses in the submitted prior art in the specification that **collated** printing and **face-up** printing are traditional formatting types. See paragraph [0001] of Applicant's BACKGROUND. It would make sense to put these formatting options into the print job description since it describes the print job to be printed.
- Since the teachings of Blossey et al and Applicant are in the art of print job control and file spooling, it would have been obvious to one of ordinary skill in the art at the time of the invention to include different formatting types into a job control file. The motivation would be so that users can have various formatting options to customize a printed document the way that they wanted.

16. Claim 16

A computer-readable medium comprising instructions for driver-independent, printer-independent collated, face-up printer output, said instructions comprising the acts of:

- **creating a page-independent index file;**
- **manipulating said index file to effect document formatting options; and**
- **accessing said manipulated index file to execute a print job.**
- These limitations have been addressed in the rejection to claim 1.

I. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barry et al (U.S. Patent No. 6,825,943) in view of Young (U.S. Patent No. 5,749,024) and applicant's submitted prior art in the specification.

The Barry et al reference discloses a method and apparatus for parallel printing of large documents.

1. Claim 1

A method for providing collated, face-up printing, said method comprising:

- **creating a spool data file;**
- Barry et al discloses in Fig. 1a (item 104) and column 3, line 13 "...a print job file". Column 1, lines 53-54 explains that their invention has a step of spooling the print job file.
- **creating a Page-Independent index file from said spool data file;**
- Barry et al discloses in Fig. 1a (item 110) and column 3, lines 15-19 that there is a "print control file 110 for storing job control information." Also, column 6, lines 9-13 explains that this control file has "operating parameters and program operators for controlling the operation of the processing of the print job file. " This control file 110 can read on the PISF since it performs similar functions.
- **manipulating said index file to effect document page manipulation options; and**
- Barry et al discloses in Fig. 2a (item 214) that users can manually define parameters. The other path would be to simply read the control file. However, it does not disclose that the user can go and change the control file.
- Column 6, lines 9-13 discloses that Fig. 2a (item 204) is used to "update the job control file 110..." It would be obvious that this process could be a computer update or a user could update it. The motivation for having a user update would be for on-the-fly manipulation of printing options.
- **executing a print job by accessing said index file.**
- Barry et al discloses in Fig. 2a (item 204) and column 6, lines 9-13 that "[t]he flow then proceeds to a block 204 to update the job control file 110 which contains operating parameters and program operators for controlling the operation of the processing of the print job file."
- Barry et al discloses in column, 6 lines 9-13 that "...the job control file 110, which contains operating parameters and program operators for controlling the operation of the processing of the print job file." Barry et al does not explicitly disclose what these operating parameters are.

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- However, the applicant discloses in the submitted prior art in the specification that **collated** printing and **face-up** printing are traditional formatting types. See paragraph [0001] of Applicant's BACKGROUND. Furthermore, the Young reference teaches, in column 4, lines 36-44, that manipulation of printed files is available for face-up and collated printing. Additionally, face-down printing is available. It would make sense to put these formatting options into the control file since it describes the print job to be printed.
- Since the teachings of Barry et al, Young and Applicant are in the art of print job control and file spooling, it would have been obvious to one of ordinary skill in the art at the time of the invention to include different formatting types into a job control file. The motivation would be so that users can have various formatting options to customize a printed document the way that they wanted.

2. Claim 2

The method of claim 1 wherein

- **said spool data file is a Microsoft Windows Job Description File.**
- Barry et al discloses in column 1, lines 18-21 that PostScript is a popular means of describing documents for printing. One skilled in the art knows that PostScript can be used in the Windows operating environment, although it might not necessarily be termed a **"MS windows job description file."**
- Also, the applicant disclosed prior art in the BACKGROUND of the specification in paragraph [0006] explains that EMF and raw are two common types of data files in Windows.
- Both references are in the art of file spooling/control and printing. This will serve as the motivation for combining these two references from here forth.
- Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention to use EMF or raw data instead of PostScript. The motivation would have been that users would have had an easier time customizing or printing in various formats, depending on which one was more suited to the users' needs.

3. Claim 3

The method of claim 1 wherein

- **said manipulation comprises changing the order in which pages are printed.**
- See wherein Barry et al only mentions "operating parameters" an "program operators" (column 6, lines 9-13), but does not disclose that these include any means of changing the order of the document pages.
- The applicant's disclosure of the prior art in U.S. Patent application serial number 09/894,928 states in page 2, line 17-19 that "reverse order collation" is a known formatting option.
- Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include "reverse order collation" in Barry et al's invention . The motivation would have been to give users more printing manipulation options.
- Furthermore, admission of this prior art is connected with the current application because the current application is a CIP of application Serial Number 09/894,928, and the admitted prior art from Applicant applies to the examination of this application.

4. Claim 4

The method of claim 1 wherein

- **said index file comprises print job commands, page commands and page data.**
- See wherein Barry et al discloses in column, 6 lines 9-13 that "...the job control file 110, which contains operating parameters and program operators for controlling the operation of the processing of the print job file." These could read on the commands for the print job and the page.
- Furthermore, Barry et al discloses in column 3, lines 27-29, a "language processor 120 for extracting information from the job control file 110..." Column 3, lines 42-48 gives an example that the language processor can extract data about the number of pages (i.e. **page data**).

5. Claim 5

The method of claim 1 wherein

- **said index file provides access to at least one Enhanced Metafile (EMF) file.**
- As mentioned above, in the rejection to claim 1, the control file 110 can read on the index file.
This control file 110 controls information in a print job file 104, but Barry et al does not explicitly disclose what format this print job file is in.
- However, the applicant's disclosure of the prior art states in paragraph [0006] that EMF and raw are two common types of data that Windows typically uses.
- Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use EMF or raw data in Barry et al's invention. The motivation would have been to use a widely recognized format for increased compatibility.

6. Claim 6

The method of claim 1 wherein

- **said index file provides access to at least one raw format file.**
- See claim 5 above. Same rejection with raw data instead of EMF.

7. Claim 7

The method of claim 1 wherein

- **said manipulation of said index file comprises changing the side of a duplex page on which printing occurs.**
- In following the availability of face-up printing taught by Applicants admission of prior art traditional to the invention, it follows that face-down printing is a option. Therefore, the manipulation comprises changing the side (from face-down to face-up) of any page on which printing occurs.

8. Claim 8

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A method for providing driver-independent, printer-independent collated, face-up printing in a printing system, said method comprising:

- **creating a spool data file;**
- Barry et al discloses in Fig. 1a (item 104) and column 3, line 13 "...a print job file". Column 1, lines 53-54 explains that their invention has a step of spooling the print job file.
- **creating a Page-Independent Spool File (PISF) index file from said spool data file;**
- Barry et al discloses in Fig. 1a (item 110) and column 3, lines 15-19 that there is a "print control file 110 for storing job control information." Also, column 6, lines 9-13 explains that this control file has "operating parameters and program operators for controlling the operation of the processing of the print job file. " This control file 110 can read on the PISF since it performs similar functions.
- **allowing manipulation of said PISF index file to effect document page manipulation options; and**
- Barry et al discloses in Fig. 2a (item 214) that users can manually define parameters. The other path would be to simply read the control file. However, it does not disclose that the user can go and change the control file.
- Column 6, lines 9-13 discloses that Fig. 2a (item 204) is used to "update the job control file 110..." It would be obvious that this process could be a computer update or a user could update it. The motivation for having a user update would be for on-the-fly manipulation of printing options.
- **Accessing said PISF index file to execute a print job.**
- Barry et al discloses in Fig. 2a (item 204) and column 6, lines 9-13 that "[t]he flow then proceeds to a block 204 to update the job control file 110 which contains operating parameters and program operators for controlling the operation of the processing of the print job file."
- Barry et al discloses in column, 6 lines 9-13 that "...the job control file 110, which contains operating parameters and program operators for controlling the operation of the processing of the print job file." Barry et al does not explicitly disclose what these operating parameters are.

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- However, the applicant discloses in the submitted prior art in the specification that **collated** printing and **face-up** printing are traditional formatting types. See paragraph [0001] of Applicant's BACKGROUND. Furthermore, the Young reference teaches, in column 4, lines 36-44, that manipulation of printed files is available for face-up and collated printing. Additionally, face-down printing is available. It would make sense to put these formatting options into the control file since it describes the print job to be printed.
- Since the teachings of Barry et al, Young and Applicant are in the art of print job control and file spooling, it would have been obvious to one of ordinary skill in the art at the time of the invention to include different formatting types into a job control file. The motivation would be so that users can have various formatting options to customize a printed document the way that they wanted.

9. Claim 9

A method for providing face-up, collated output in a printing system, said method comprising:

- **creating a Page-Independent Spool File (PISF) index file;**
- **manipulating said PISF index file to effect document formatting options; and**
- **accessing said manipulated PISF index file to execute a print job.**
- These limitations have all been addressed in the rejection to claim 1.

10. Claim 10

The method of claim 19 wherein

- **said creating, said manipulating and said accessing are accomplished with a print processor.**
- Barry et al – column 7, lines 42-48. “[t]he substitute RIP instruction is configured and generated according to the RIP requirements and provides the instruction for performing a standard full RIP of the select portion as well as modifying the RIP to be performed on the remainder of the print job file to be processed by the particular processor that will perform the RIP for the select portion.”

11. Claim 11

The method of claim 9 wherein

- **said creating, said manipulating and said accessing are accomplished through a spooler.**
- Barry et al discloses in column 3, lines 15-17, that “[p]rint spooler 108 includes a control file 110...”

12. Claim 12

The method of claim 9 wherein

- **said creating, said manipulating and said accessing are accomplished through a print assistant between a driver and a printer.**
- Barry et al discloses in column 3, lines 13-15, a “print driver 102.” Also, column 3, lines 27-29 discloses a “language processor 120” and column 4, lines 19-20 discloses an “instruction operator 114.” One can see from Fig. 1a and 1b that the language processor 120 or the instruction operator 114 can assist in the printing process.

13. Claim 13

A method for adding collated, face-up output capability to a printing system, said method comprising:

- **initiating a print job for a document;**
- Barry et al discloses in Fig. 1a (item 100) a “print job input”
- **creating a page-independent spool index file;**
- Barry et al discloses in Fig. 1a (item 110) and column 3, lines 15-19 that there is a “print control file 110 for storing job control information.” Also, column 6, lines 9-13 explains that this control file has “operating parameters and program operators for controlling the operation of the processing of the print job file. “ This control file 110 can read on the page-independent spool index file since it performs similar functions.

- **modifying said index file, from said print processor, to make said print job conform to said user input; and**
- Barry et al discloses in Fig. 2a (item 214) that users can manually define parameters. The other path would be to simply read the control file. However, it does not disclose that the user can go and change the control file.
- Column 6, lines 9-13 discloses that Fig. 2a (item 204) is used to "update the job control file 110..." It would be obvious that this process could be a computer update or a user could update it. The motivation for having a user update would be for on-the-fly manipulation of printing options.
- **accessing said index file, from said print processor, to obtain document formatting information for printing.**
- One can see in Fig. 1a of Barry et al that the control file 110 is accessed by the language processor 120 and/or the instruction operator for job file 114. Claim 3 above addresses the **document formatting information** portion of this limitation.
- Barry et al discloses in column, 6 lines 9-13 that "...the job control file 110, which contains operating parameters and program operators for controlling the operation of the processing of the print job file." Barry et al does not explicitly disclose what these operating parameters are.
- However, the applicant discloses in the submitted prior art in the specification that **collated** printing and **face-up** printing are traditional formatting types. See paragraph [0001] of Applicant's BACKGROUND. Furthermore, the Young reference teaches, in column 4, lines 36-44, that manipulation of printed files is available for face-up and collated printing. Additionally, face-down printing is available. It would make sense to put these formatting options into the control file since it describes the print job to be printed.
- Since the teachings of Barry et al, Young and Applicant are in the art of print job control and file spooling, it would have been obvious to one of ordinary skill in the art at the time of the invention to include different formatting types into a job control file. The motivation would be so that users can have various formatting options to customize a printed document the way that they wanted.

14. Claim 14

The method of claim 13 wherein

- **said index file is produced by a print system component in a print system between a driver and a printer.**
- See rejection to claim 12 above.

15. Claim 15

A printing system with driver-independent, printer-independent document formatting, said system comprising: a print processor comprising:

- **an indexer for creating a page-independent index file;**
- The spooler 108 as disclosed by Barry et al reads on the **indexer** (column 3, lines 15-17).
- **a modifier for modifying said index file to effect document formatting options; and**
- **a reader for accessing said manipulated index file to execute a modified print job.**
- These limitations have been addressed in the rejection to claim 13.
- Barry et al discloses in column, 6 lines 9-13 that "...the job control file 110, which contains operating parameters and program operators for controlling the operation of the processing of the print job file." Barry et al does not explicitly disclose what these operating parameters are.
- However, the applicant discloses in the submitted prior art in the specification that **collated** printing and **face-up** printing are traditional formatting types. See paragraph [0001] of Applicant's BACKGROUND. Furthermore, the Young reference teaches, in column 4, lines 36-44, that manipulation of printed files is available for face-up and collated printing. Additionally, face-down printing is available. It would make sense to put these formatting options into the control file since it describes the print job to be printed.
- Since the teachings of Barry et al, Young and Applicant are in the art of print job control and file spooling, it would have been obvious to one of ordinary skill in the art at the time of the invention

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to include different formatting types into a job control file. The motivation would be so that users can have various formatting options to customize a printed document the way that they wanted.

16. Claim 16

A computer-readable medium comprising instructions for driver-independent, printer-independent collated, face-up printer output, said instructions comprising the acts of:

- **creating a page-independent index file;**
- **manipulating said index file to effect document formatting options; and**
- **accessing said manipulated index file to execute a print job.**
- These limitations have been addressed in the rejection to claim 1.

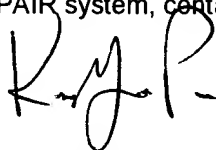
NOTE: Claim 17 is address under *Claim Rejections - 35 USC § 101* section.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle Pendergrass whose telephone number is **(571) 272-7438**. The examiner can normally be reached on Monday-Friday 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571) 272-7437.

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04/27/05